1. An apparatus for controlling address power of a plasma display panel, the plasma display panel having pluralities of address electrodes, scan electrodes, and sustain electrodes, the scan electrodes and sustain electrodes forming pairs and being alternately disposed on the plasma display panel, the apparatus comprising:

a memory for storing sustain discharging information with respect to load ratios;

an address power controller responsive to an externally input video signal for calculating a sum of pixel differences between lines of the externally input video signal and for outputting video data modified by multiplying the video signal with an attenuation coefficient corresponding to the calculated sum;

a video data processor for processing the modified video data;

an average signal lever detector for measuring a load ratio of the modified video data; and

a sustain power controller for outputting sustain discharge information corresponding to a load ratio of currently input data.

2. The apparatus of claim 1, wherein the address power controller comprises:

a line memory for storing a line of the externally input video signal;

a calculator for calculating a pixel difference between a current line and a previous line stored in the line memory and for calculating the sum of pixel differences by summing the pixel differences;

an attenuation coefficient storage unit for storing attenuation coefficients with respect to sums of pixel differences;

an attenuation coefficient calculator for retrieving an attenuation coefficient corresponding to the calculated sum of pixel differences and for outputting the retrieved attenuation coefficient; and

a multiplier for outputting data modified by multiplying the video signal with the attenuation coefficient output from the attenuation coefficient calculator.

3. The apparatus of claim 2, wherein the attenuation coefficient is inversely proportional to the sum of pixel differences in a frame.

4. The apparatus of claim 3, wherein the attenuation coefficient is 1 when the sum of pixel differences in a frame is 0, the attenuation coefficient decreases as the sum of pixel differences increases, and the attenuation coefficient has a value in a range of 0 to 1.

5. The apparatus of claim 3, wherein the sum of pixel differences of a frame is calculated as a value of S in the equation

$$S = \sum_{I=1}^{N} \sum_{J=1}^{M} P_{i+1,j} - P_{i,j} ,$$

where N, M, P, i, and j respectively denote a number of lines in the frame, a number of columns in the frame, pixel data, index for lines, and index for columns.

6. The apparatus of claim 3, wherein the video data processor transforms the modified video data signal to a data signal for gray control, and, classifying the data signal according to its gray scale, outputs a classified data signal in an order corresponding to a predetermined driving sequence.

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7. A plasma display panel device comprising:

a plasma display panel having pluralities of address electrodes, scan electrodes, and sustain electrodes, the scan electrodes and the sustain electrodes forming pairs and being alternately disposed;

10 a controller responsive to an externally input video signal for calculating a sum of pixel differences between lines of the externally input video signal, outputting video data modified by multiplying the externally input video signal with an attenuation coefficient corresponding to the calculated sum, measuring a load ratio of the externally input video signal, and outputting sustain discharge

15 pulse information corresponding to the measured load ratio;

an address data generator for generating address data corresponding to the modified data received from the controller, and for accordingly applying the address data to the address electrodes of the plasma display panel; and

a sustain-scan pulse generator for generating sustain pulses and scan

20 pulses corresponding to sustain discharge information received from the controller, and for respectively applying the sustain pulses and the scan pulses to the sustain electrodes and the scan electrodes.

8. The plasma display panel device of claim 7, wherein the controller

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comprises:

a memory for storing sustain discharging information with respect to load ratios;

an address power controller for calculating a sum of pixel differences between lines of an externally input video signal and for outputting video data modified by multiplying the video signal with an attenuation coefficient corresponding to the calculated sum;

a video data processor for processing the modified video data;

an average signal lever detector for measuring a load ratio of the modified video data; and

a sustain power controller for outputting sustain discharge information corresponding to a load ratio of currently input data.

9. The plasma display panel device of claim 8, wherein the attenuation coefficient is inversely proportional to a sum of pixel differences between a previous line and a current line, and has a value in the range of 0 to 1.

10. A method for controlling address power of a plasma display panel, the plasma display panel having pluralities of address electrodes, scan electrodes, and sustain electrodes, the scan electrodes and sustain electrodes forming pairs and being alternately disposed, the method comprising:

calculating a sum of pixel differences between lines throughout an input video signal;

determining an attenuation coefficient that corresponds to the

calculated sum; and

outputting video data modified by multiplying the video signal with the attenuation coefficient.

11. The method of claim 10, further comprising:

transforming the modified video data signal to a data signal for gray control;

classifying the data signal according to its gray scale to provide a classified data signal; and

outputting the classified data signal in an order corresponding to a predetermined driving sequence.

12. The method of claim 11, further comprising:

determining sustain discharge information that corresponds to a load ratio of input video data;

applying a sustain pulse and a scan pulse to the sustain electrodes and the scan electrodes, the sustain and scan pulses being generated corresponding to the sustain discharge information; and

applying address data to the address electrodes, the address data being generated in the order corresponding to the predetermined driving sequence.

13. The method of claim 12, wherein the attenuation coefficient is inversely proportional to a sum of pixel differences between a previous line and

a current line, and has a value in the range of 0 to 1.